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Rosita Clarke, Project Manager & Project Officer
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Brownfields & NPL Reuse Section #2
U.S. EPA - Region 5
77 West Jackson Blvd (SM-7J)
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Via E-Mail: Clarke.Rosita@epamail.epa.gov

Dear Ms. Clarke:

Please be advised that I represent the Pilsen Environmental Rights and Reform Organization (PERRO) and the Little Village Environmental Justice Organization (LVEJO). On behalf of PERRO and LVEJO, I am writing in response to the request made by Regional Administrator Hedman to provide a written description of the basis for the concerns expressed by PERRO and LVEJO regarding the Fisk and Crawford sites in Chicago.

I. Background

Midwest Generation's Crawford Station, located at 3501 S. Pulaski Road in Chicago, operates on a 72 acre site in the midst of the Little Village neighborhood. According to U.S. EPA's ECHO database, 370,000 people, 83% of whom are minorities, live within a 3 mile radius of this facility. The Midwest Generation Fisk Station encompasses approximately 60 acres and is located in the adjacent Pilsen community at 1111 W. Cermak Road, Chicago, IL 60608. 79% of the 310,000 individuals living within a 3 mile radius of the Fisk Station are minorities.

Coal combustion units at the Crawford and Fisk Stations are being decommissioned. There are ongoing conservations about remediating and repurposing the sites. In these conversations, residents have learned about regulatory programs to address asbestos-containing material and lead-based paint that are commonplace in industrial buildings of this age and purpose. They have also learned about requirements relating to removing underground storage tanks and related infrastructure, as well as surface and subsurface soils that are impacted by releases of tank contents. Local residents are also learning that polychlorinated biphenyls are commonplace at older coal-fired power plants, found in old electrical equipment and, frequently, in soil that has been impacted by spills of these highly toxic substances. They have been assured that these

kinds of environmental issues are typically confined to the facility property, and are subject to well-established regulatory requirements at the time of remediation.

However, advocates for residents of Pilsen and Little Village contend that this list of potentially hazardous conditions is incomplete. Advocacy groups like the Pilsen Environmental Rights and Reform Organization (PERRO) and the Little Village Environmental Justice Organization (LVEJO) argue there are other ways that there could be releases of hazardous substances from these facilities into the environment, including the densely populated residential communities immediately adjacent to these facilities.

Consistent with the principles of environmental justice, these organizations are seeking a full and complete opportunity for residents to participate in the assessment of potential releases of hazardous substances from these facilities. This assessment must include full disclosure of information that is being developed by the owner of the sites, the City of Chicago and regulatory agencies characterizing environmental conditions on and near these sites. Also consistent with the principles of environmental justice, these organizations assert that any remedial activities must be designed, implemented and completed in such a manner that there is not an adverse or disproportionate harm to nearby communities, now or in the future. These environmental justice goals are consistent with longstanding U.S. EPA policy and current strategic goals. http://www.epa.gov/environmentaljustice/plan-ej/index.html

To this end, in addition to the environmental conditions cited above, PERRO and LVEJO assert there are other potential environmental threats that may have originated from the decades-long operations of these sites, potentially resulting in widespread releases of hazardous substances into the environment, including off-site residential areas, public areas, public ways and public waterways. They are requesting a complete evaluation of on-site conditions and off-site impacts, in such a manner that residents are fully informed and engaged. In both cases, the potential risks occur by virtue of the releases of hazardous substances from these facilities into the environment, suggesting this situation triggers the Comprehensive Environmental Response, Compensation and Liability Act.

II. Hazardous Substances That Originate From Coal Combustion Residue

There are hazardous constituents in coal combustion residuals. This is the conclusion of U.S. EPA's December, 2009 research report, *Characterization of Coal Combustion Residues From Electric Utilities – Leaching and Characteristic Data*, by D. Kosson, F. Sanchez, P. Kariher, L.H. Turner, R. Delapp and P. Seignette, (EPA-600/R-09/151). This report analyzed 73 variations of CCR generated by coal-fired power plants for 13 constituents of potential concern – mercury, aluminum, antimony, arsenic, barium, boron, cadmium, chromium, cobalt, lead, molybdenum, selenium and thallium. Id. at ii. The variations represented different coal sources (for example, eastern bituminous, Powder River Basin sub-bituminous, lignite), different coal combustion units (distinguishable by factors like NOx, PM, SO2 and Hg controls) and different waste streams (for example, fly ash, FGD gypsum, scrubber residues and blended CCR). Id. at viii –xi.

U.S. EPA's report concludes that CCR is not a uniform, homogenous waste, but instead consists of multiple, highly diverse waste streams. U.S. EPA's report concludes there is "…great variability in both the range of total constituent concentration values and in leaching values (orders of magnitude)," and that, "…eluate concentration from leaching test results varies over a wide range in pH and is different for different CCR types and elements." Id. at ii. Having concluded CCR is highly variable, U.S. EPA's report is able to identify one common characteristic of the hazardous substances that originate from multiple CCR waste streams. Compared to health indicator values such as the maximum concentration limit or toxicity characteristic, there are multiple constituents of potential concern. Id.

Consequently, residents are concerned about surface soil, subsurface soil, groundwater and sediment contamination originating from bottom ash and fly ash units, ash handling areas, ash storage areas, and ash transportation operations. They are aware that Illinois EPA recently issued Notices of Violation relating to the alleged improper management of coal combustion wastes at and near other Midwest Generation facilities (Joliet 29, Powerton, Waukegan and Will County). They are also concerned about the migration of hazardous substances through windborne transport into nearby community areas, and by the movement of these residues as they are transported by truck on public streets.

It should also be emphasized that it does not appear there have been regulatory standards for CCR storage sites to control runoff, leachate and air releases. It is unclear is there are any standards regarding containment structures or operational practices to prevent the release of contaminants into the air, surface soil, subsurface soil, surface water or groundwater. There do not appear to be any requirements for corrective action, closure, post-closure or financial assurance. Releases of contaminants of potential concern - mercury, aluminum, antimony, arsenic, barium, boron, cadmium, chromium, cobalt, lead, molybdenum, selenium and thallium – would not be detected under existing law because there are no federal regulations for monitoring CCR storage units. Perhaps most importantly, there are no standards for how long CCR can be kept in a storage unit, meaning these units could function as "de facto" disposal sites.

Despite the known contaminants of potential concern in CCR, there are no national standards to control releases of CCR during the on-site piling of CCR for storage, or during the loading, transportation and off-loading of CCR that is directed to off-site locations. Yet, these are the very activities that groups like LVEJO and PERRO believe may have created the most immediate, daily threat of public exposure to the hazardous constituents in CCR during the decades-long operations of the Fisk and Crawford facilities.

III. Hazardous Substances That Originate From Air Releases

U.S. EPA asserts that there are several hazardous substances that are released into the air as a consequence of coal combustion. *National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units; Final Rule. Federal Register / Vol. 77 , No. 32 / Thursday, February 16, 2012 / Rules and Regulations.* These hazardous substances are antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese,

nickel and selenium. The air releases of these hazardous substances have not been subject to federal emission control limits during the period that the Fisk and Crawford facility operated.

Coal combustion units are also sources of mercury; the Fisk and Crawford facilities employ mercury-specific controls pursuant to a state mandate, but only since 2008-9.

Consequently, residents are concerned about the air deposition of hazardous substances, especially in surface soils surrounding the Crawford and Fisk facilities. They are particularly concerned because many of these hazardous substances are persistent, bioaccumulative and highly toxic. There is a basis to believe these hazardous substances have been deposited in the surface soils of nearby residential communities.

Stack and plume height must be considered when evaluating deposition patterns. For example, the deposition of lead from a tall stack coal-fired power plant can occur several kilometers from the facility. This is the conclusion of researchers Jessica L. Johnston and Richard D. Foust, Jr. in their 1999 paper New Methodology for Monitoring Atmospheric Deposition of Lead at the Mohave Power Plant in Laughlin, Nevada. Johnston and Faust took lead soil samples at increasing distances from the Mohave Power Plant, as far 28 km from the point of plant emissions. Using a linear regression method, the researchers concluded there was a clear correlation between the site distance from the Mohave Power Plant and the lead concentrations in the soil samples. Notably, levels significantly above background were found at 6.21 km and 7.13 km from the facility stack. Elevated levels were observed as far 17.86 km distance from the facility stack. The deposition of the metal content from fly ash is deposited early in the transport of particles in the atmosphere; however, this "early deposition" may be anywhere within several kilometers from the stacks of a coal-fired power plants like Fisk or Crawford.

In a July 31, 2007 Notice of Violation, U.S. EPA asserted the Fisk and Crawford facilities repeatedly violate a 30% opacity standard, one indicator of its particulate matter (and, in turn, hazardous inorganic) air emissions. Like other Midwest Generation facilities, the Fisk and Crawford facilities are now subject to a civil enforcement action based, in part, on violations of this opacity standard. See: United States of America and the State of Illinois v. Midwest Generation, 09-cv-05277, United States District Court for the Northern District of Illinois.

IV. Description of Hazardous Substances

In support of their concerns about the potential public health and environmental impacts arising from hazardous substances identified at coal-fired power plants, in coal combustion ash residue and in air emissions from the coal combustion, PERRO and LVEJO are incorporating by reference toxicological information developed by the federal Agency For Toxic Substances and Disease Registry for the following hazardous substances:

aluminum (http://www.atsdr.cdc.gov/tfacts22.pdf)
antimony (http://www.atsdr.cdc.gov/toxfaqs/tfacts23.pdf)
arsenic (http://www.atsdr.cdc.gov/tfacts2.pdf)
asbestos (http://www.atsdr.cdc.gov/tfacts61.pdf)
barium (http://www.atsdr.cdc.gov/tfacts24.pdf)

beryllium (http://www.atsdr.cdc.gov/tfacts4.pdf)
boron (http://www.atsdr.cdc.gov/toxfaqs/tfacts26.pdf)
cadmium (http://www.atsdr.cdc.gov/tfacts5.pdf)
chromium (http://www.atsdr.cdc.gov/tfacts7.pdf)
cobalt (http://www.atsdr.cdc.gov/toxfaqs/tfacts33.pdf)
lead (http://www.atsdr.cdc.gov/tfacts13.pdf)
manganese (http://www.atsdr.cdc.gov/tfacts151.pdf)
mercury (http://www.atsdr.cdc.gov/tfacts46.pdf)
polychlorinated biphenyls (http://www.atsdr.cdc.gov/tfacts17.pdf)
selenium (http://www.atsdr.cdc.gov/tfacts92.pdf)
thallium (http://www.atsdr.cdc.gov/toxfaqs/tfacts54.pdf)

IV. Hazardous Substances That Originate From Manufactured Gas Plant Operations

LVEJO and PERRO are also concerned about hazardous substance releases from the locations of the Fisk and Crawford facilities because of evidence that these sites were previously used as manufactured gas plants (see: http://www.epa.gov/region5/cleanup/peoplesgas/index.htm). There is a cluster of former MGPs surrounding the Fisk facility, including one large site – the 22nd Street Station, 2200 S. Racine Ave., ILD982074767 – that appears to overlap with the existing boundaries of the Fisk facility. Another MGP is explicitly identified as the Crawford Station, 3500 S. Pulaski Ave., ILN000510192.

According to U.S. EPA, which is the lead agency for the remediating MGPs in Chicago, there are several hazardous substances that can be released by virtue of MPG operations and wastes. A Region 5 Press Release from June 7, 2007 characterized the wastes and corresponding hazardous substances in the following manner:

> All of the properties covered by the agreement are relatively close to the Chicago River, which was a transportation route when the MGP facilities operated. MGPs produced gas from coal from the mid-19th through the mid-20th centuries. After World War II, coal gas was phased out and replaced with natural gas for cooking and heating. Waste from MGP operations includes tar, oil, cinders and coke (coal residue). The material contains polynuclear aromatic hydrocarbons, volatile organic compounds and heavy metals such as arsenic and lead. http://yosemite.epa.gov/opa/admpress.nsf/names/r05_2007-6-7_peoplesgas

As evidence of the basis of their public health and environmental concerns regarding these MGPs, LVEJO and PERRO are incorporating by reference the following TOXFAQ for polyaromatic haydrocarbons (http://www.atsdr.cdc.gov/tfacts69.pdf). As EPA is aware, PAHs refer to a class of hazardous substances including both carcinogenic and non-carcinogenic substances (see: http://www.atsdr.cdc.gov/ToxProfiles/tp69.pdf).

Thank you for your attention to this letter. On behalf of PERRO and LVEJO, I look forward to working with EPA to address the concerns that are expressed in this letter and by community residents in their communications with EPA.

Sincerely,

/s/ Keith Harley

Keith Harley
Attorney at Law
Chicago Legal Clinic, Inc.